Attachment 4: Budget

Contents

BUDGET

This Proposition 84 Implementation Grant Proposal for the Mokelumne/Amador/Calaveras (MAC) Integrated Regional Water Management (IRWM) Planning Region contains four projects: the Lake Camanche Tank Rehabilitation & Lateral Replacement Project, the Amador Water System (AWS) Leak Detection & Repair Program, the West Point Water Main & Tank Replacement Project, and the Camanche Regional Water Treatment Plant Phase 1 Project. The total cost of the proposal is $3,069,634. Of this amount, $366,307 (~12%) is provided as non-state funding match with funding match waivers requested for the two proposed projects directly benefiting DACs. The sum of $2,703,328 is being requested from the State through the Proposition 84 Integrated Regional Water Management (IRWM) Implementation Grant Program. Table 1, referenced as Table 7 in Exhibit B of the *Implementation Proposal Solicitation Package, Integrated Regional Water Management, Proposition 84, Round 1* (Prop 84 PSP, August 2010) and shown below, displays the overall costs for this grant application. Detailed cost estimates for each of the four projects contained in this application follow. The specific work items detailed in Attachment 3 are reflected in the detailed cost estimates.

Table 1: Summary Budget for the Mokelumne/Amador/Calaveras Integrated Regional Water Management Planning Region Proposition 84 Implementation Grant Application (referenced as Table 7 in Exhibit B of the Prop 84 PSP)

Proposal Budget Project Title: Mokelumne/Amador/Calaveras (MAC) IRWM Region Proposition 84 Implementation Grant Application						
		(a)	**(b)**	**(c)**	**(d)**	**(e)**
Budget Category		**Non-State Share* (Funding Match)**	**Requested Grant Funding**	**Other State Funds Being Used**	**Total** *This field will fill automatically*	**% Funding Match** *This field will fill automatically*
(a)	Direct Project Administration Costs	$21,267	$111,636	$0	$132,903	19%
(b)	Land Purchase/Easement	$0	$10,000	$0	$10,000	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$296,252	$84,905	$0	$381,157	78%
(d)	Construction/Implementation	$31,964	$2,213,149	$0	$2,245,113	1%
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$18,478	$0	$18,478	0%
(f)	Construction Administration	$5,870	$102,353	$0	$108,223	5%
(g)	Other Costs	$10,954	$44,486	$0	$55,440	20%
(h)	Construction/Implementation Contingency	$0	$118,320	$0	$118,320	0%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$366,307**	**$2,703,328**	**$0**	**$3,069,634**	**12%**

Lake Camanche Tank Rehabilitation & Lateral Replacement Project

The Lake Camanche Tank Rehabilitation & Lateral Replacement Project consists of improvements to the Amador Water Agency (AWA) water distribution system serving Lake Camanche Village, a disadvantaged community. The project would rehabilitate five redwood storage tanks by fabricating and lining the tanks with geomembrane liners. Lining then tanks not only reduces water losses and increases storage capacity, but it also improves the water quality by reducing the substrate that microorganisms can grow on. In addition to the storage tank rehabilitation, the project would replace 200 leaking service laterals with ¾-inch diameter copper pipe. The existing laterals are very brittle and subject to severe longitudinal cracking, resulting in significant water losses and infrastructure damage. By lining the tanks and replacing the service laterals, AWA will ensure that sufficient water is available for emergency and drought situations and for meeting increasing water demands in the disadvantaged community of Lake Camanche Village.

A summary of the budget for the AWA Lake Camanche Tank Rehabilitation & Lateral Replacement Project is presented in Table 2. The budget is based on the latest Project documentation, as well as estimates for professional services, and totals $560,135. Of this total, $6,580 will be provided by AWA as the local funding match while the remaining $553,555 is requested in grant funding. This represents an approximately 1% local funding match for this project. However, as this project directly benefits a disadvantaged community (Lake Camanche Village) and as the community could not economically absorb any rate increase associated with the needed repairs, a funding match waiver has been requested for this project (see Attachment 12 for more details).

Table 2: Lake Camanche Tank Rehabilitation & Lateral Replacement Project
Summary Budget (referenced as Table 7 in Exhibit B of the Prop 84 PSP)

Project Budget Project Title: Lake Camanche Tank Rehabilitation & Lateral Replacement Project						
		(a)	(b)	(c)	(d)	(e)
	Budget Category	**Non-State Share* (Funding Match)**	**Requested Grant Funding**	**Other State Funds Being Used**	**Total** *This field will fill automatically*	**% Funding Match** *This field will fill automatically*
(a)	Direct Project Administration Costs	$6,580	$25,967	$0	$32,547	20%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$17,040	$0	$17,040	0%
(d)	Construction/Implementation	$0	$483,427	$0	$483,427	0%
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$0	$21,522	$0	$21,522	0%
(g)	Other Costs	$0	$5,600	$0	$5,600	0%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	0%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$6,580**	**$553,555**	**$0**	**$560,135**	**1%**
***List sources of funding:** *In-kind services provided by AWA employees. This project will be directly serving a disadvantaged community; therefore a funding waiver is requested for this project for the remainder of the match requirements.*						

(a) Direct Project Administration Detail

Direct project administration costs were calculated based on expected level of effort for preparing grant contract documents, general project administration tasks (project start-up coordination meeting, reimbursement requests, communications with UMRWA, and Board communications), preparation and implementation of a Project Performance Monitoring Plan (including post-implementation monitoring and reporting), documents management, schedule review, and reporting (Quarterly Reports and Project Completion Report). Table 3 details the hourly wages paid by discipline and the number of hours to be expended for project administration. There are no costs for equipment and supplies for this project. Costs associated with a Labor Compliance Program are included in section (g), Other Costs.

In general, AWA plans on spending a total of $6,580 on project administration prior to June 1, 2011 for this Project, including the completion of conceptual project design and preparation of work products in support of this Prop 84 IRWM Implementation Grant Proposal. In total, 94 hours were or will be spent by the AWA project manager, 116 hours by the assistant engineer, 28 hours by the administrative assistant, and 109 hours by the UMRWA grant administrator.

Table 3: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Project Administration Hourly Detail

Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Project Manager	$107.00	94	$10,058.00
Assistant Engineer	$67.00	116	$7,772.00
Administrative Assistant	$39.00	28	$1,092.00
UMRWA Grant Administrator	$125.00	109	$13,625.00
		Total	$32,547.00

(b) Land Purchase/Easement Detail

Land purchase/easement is not required for this project nor will any easements be required.

(c) Planning/Design/Engineering/Environmental Documentation Detail

Direct project planning/design/engineering/environmental documentation costs were estimated using hourly wage paid by discipline and the number of hours to be expended for planning/design/engineering/environmental documentation work items. Detail is provided in Table 4; total estimated costs for planning, design, engineering, and environmental documentation are $17,040.

In general, anticipate costs for planning, design, engineering and environmental documentation include completion of design of the Lake Camanche Tank Rehabilitation & Lateral Replacement Project. Design will include preparation of a preliminary (10%) design package, as well as preparation of a final (100%) design package. The preliminary design

package will be used to prepare the required environmental documentation, showing the laterals to be replaced and the siting and layout of the tanks to be lined. The final design package will be used to advertise the project for bid for construction. The bid package will consist of the complete, signed plans and specifications.

Environmental documentation for this project is not yet complete. Because the project involves infrastructure replacement and rehabilitation, a Categorical Exemption or Initial Study/Mitigated Negative Declaration (IS/MND) is anticipated for CEQA compliance. To be conservative, AWA is assuming an IS/MND is necessary, and the budget has been prepared accordingly.

Implementation of the Project will also require AWA to acquire an Amador County Encroachment Permit. AWA will also coordinate directly with the California Department of Public Health (CDPH) for permit compliance as this is a drinking water project.

Table 4: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Planning/Design/Engineering/Environmental Documentation Detail

Stage	Discipline	Hourly Wage ($/hr)	Number of Hours	Total
10% Design - Tanks	Assistant Engineer	$67.00	32	$2,144
10% Design - Tanks	Project Manager	$107.00	8	$856
100% Design - Tanks	Assistant Engineer	$67.00	96	$6,432
100% Design - Tanks	Project Manager	$107.00	16	$1,712
10% Design - Laterals	Assistant Engineer	$67.00	16	$1,072
10% Design - Laterals	Distribution Operator	$53.00	4	$212
100% Design - Laterals	Assistant Engineer	$67.00	28	$1,876
100% Design - Laterals	Distribution Operator	$53.00	8	$424
Environmental Documentation	N/A	Publish Notice - Tank Rehabilitation	N/A	$300
Environmental Documentation	N/A	Publish Notice - Lateral Replacement	N/A	$300
Environmental Documentation - Tank	Project Manager	$107.00	8	$856
Environmental Documentation - Laterals	Project Manager	$107.00	8	$856
			Total	$17,040

(d) Construction/Implementation Detail

Design of the Lake Camanche Tank Rehabilitation & Lateral Replacement Project is currently in conceptual design; however, as this project is ministerial in nature, the project is not significantly different then other projects implemented by AWA in the past. Therefore, the total costs associated with Construction/Implementation were estimated based on recent requests for quotes and system experience. The estimated construction cost for this Project is $483,426.72. The breakdown of the estimate is shown in Table 5, Table 6 and Table 7.

Table 5: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Cost of Materials for Construction

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Tank Liners	$11,400.00	5	$57,000.00
Service Lines - Laterals	$350.00	200	$70,000.00
Asphalt - Laterals	$175.00	32	$5,600.00
Trench Sand - Laterals	$10.00	500	$5,000.00
		Total	$137,600.00

Table 6: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Cost of Equipment for Construction

Equipment Used	Costs ($)	Number of Units	Total ($)
Crane - Tank	$123.60	20	$2,472.00
Backhoe - Tank	$41.44	160	$6,630.40
Low Bed - Tank	$62.13	24	$1,491.12
Crew Truck - Tank	$19.76	75	$1,482.00
Backhoe - Laterals	$41.44	800	$33,152.00
Compactor - Laterals	$7.70	400	$3,080.00
10 Wheel Truck - Laterals	$41.38	400	$16,552.00
Crew Truck - Laterals	$19.76	400	$7,904.00
Sawcutter - Laterals	$11.01	100	$1,101.00
Suction Vacuum - Laterals	$8.53	800	$6,824.00
Paver - Laterals	$39.72	40	$1,588.80
		Total	$82,277.32

Table 7: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Labor Costs for Construction

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Operator (Crane) - Tank	$58.09	20	$1,161.80
Operator - Tank	$54.12	80	$4,329.60
Truck Driver - Tank	$39.10	24	$938.40
Laborer - Tank	$40.45	600	$24,270.00
Distribution Operator - Tank	$46.64	80	$3,731.20
Operator - Laterals	$54.12	800	$43,296.00
Laborer - Laterals	$40.45	2400	$97,080.00
Traffic Control - Laterals	$39.10	1600	$62,560.00
Truck Driver - Laterals	$46.80	400	$18,720.00
Distribution Operator - Laterals	$46.64	160	$7,462.40
		Total	$263,549.40

(e) Environmental Compliance/Mitigation/Enhancement Detail

As previously noted, an IS/MND has been assumed for the project and therefore, for environmental compliance, it was assumed that only standard construction-related best management measures would be required for this project. Based on a preliminary project analysis, the tank rehabilitation portion of the project is not expected to cause any impacts as it is simply a relining of an existing structure and therefore does not require any modifications to the structure itself. For the lateral replacement portion of the project, all work would be conducted within paved roadways, and therefore no impacts are anticipated. Finally, the size of project (less than one acre in total size) is such that compliance with the State's Stormwater NPDES program is not required. To that end, there are no estimated costs associated with environmental compliance, mitigation or enhancement.

(f) Construction Administration Detail

Construction Administration represents the costs incurred to administer and manage construction for the Project. Construction administration costs were based on the expected labor hours for the construction manager which is related to the size and difficulty in each portion of the project. Therefore, total construction administration costs for the Lake Camanche Tank Rehabilitation & Lateral Replacement Project were estimated to be $21,522; a breakdown of this estimate is provided in Table 8, below.

Table 8: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Costs for Construction Administration

Discipline	Hours	Unit Cost ($)	Equipment Costs ($)	Total Costs ($)
Construction Manager - Tank	60	$78.00	$1,189.50	$5,869.50
Construction Manager – Laterals	160	$78.00	$3,172.00	$15,652.00
			Total	$21,521.50

(g) Other Costs Detail

Other expected costs associated with the Lake Camanche Tank Rehabilitation & Lateral Replacement Project are a Labor Compliance Program. A verbal quote from Kurey & Associates for LCP implementation was ~1% of construction cost. Additional travel time to remote site will increase the estimated costs. Also included in this budget item are three hours at $200/hour for legal counsel. A summary of these expected other costs are shown in Table 9.

Table 9: Lake Camanche Tank Rehabilitation & Lateral Replacement Project Other Costs

Item	Cost ($)
Labor Compliance (contract)	$5,000.00
Legal Counsel	$600.00
Total	$5,600.00

(h) Construction/Implementation Contingency Detail

The Lake Camanche Tank Rehabilitation & Lateral Replacement Project is a ministerial project for AWA; as such, there is a high degree of confidence in the cost estimate presented herein. As a result, there is no construction/implementation contingency percentage applied to this project.

(i) Grand Total (Sum rows (a) through (h) for each column) Detail

The total estimated cost for the Lake Camanche Tank Rehabilitation & Lateral Replacement Project is $560,135; of this, $6,580 is from a local funding match and $553,555 in grant funding is being requested from the Proposition 84 IRWM grant program.

Calculation of Funding Match %

The funding match for the Lake Camanche Tank Rehabilitation and Lateral Replacement Project is $6,580 or 1% of the total project costs. This project directly addresses critical water supply and quality needs for a DAC, and as the community cannot sustain a rate increase to fund the project, a funding match waiver is being requested for the remainder of

the local funding match. Further documentation regarding the DAC status of Lake Camanche Village is provided in Attachment 12.

Amador Water System Leak Detection & Repair Program

The Amador Water System (ASW) Leak Testing & Repair Program is a phased project in which Amador Water Agency (AWA) will first install a system of eighteen "master meters" on key pipelines within the AWS to determine those which have the most significant leakage (and thus the greatest need for repair or replacement), and then develop and implement a prioritized list of repairs to reduce overall system water losses. The first phase of the project (for which grant funding is being requested) consists of the master meter installation, leak identification and project prioritization. The actual replacement and rehabilitation of water conveyance facilities within the AWS will be funded through a combination of AWA reserves, available grants, and water rate recovery.

Table 10 is a summary of the project budget. The budget is based on the latest Project documentation, as well as estimates for professional services and totals $304,665. Of this, $76,467 will be provided by AWA as a local funding match, while the remaining $228,198 is requested in grant funding. This represents approximately 25% local funding match. Detailed budget information for project-specific work items is presented below.

Table 10: Amador Water System Leak Testing & Repair Program
Summary Budget (referenced as Table 7 in Exhibit B of the Prop 84 PSP)

Project Budget Project Title: Amador Water System Leak Testing & Repair Program						
		(a)	(b)	(c)	(d)	(e)
	Budget Category	Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$14,687	$10,625	$0	$25,312	58%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$23,946	$0	$0	$23,946	100%
(d)	Construction/Implementation	$31,964	$209,887	$0	$241,851	13%
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$0	$0	$0	0%
(f)	Construction Administration	$5,870	$0	$0	$5,870	100%
(g)	Other Costs	$0	$7,686	$0	$7,686	0%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	0%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$76,467**	**$228,198**	**$0**	**$304,665**	**25%**
***List sources of funding:** *In-kind services provided by AWA employees*						

(a) Direct Project Administration Detail

Direct project administration costs were calculated based on expected level of effort for preparing grant contract documents, general project administration tasks (project start-up coordination meeting, reimbursement requests, communications with UMRWA, and Board communications), preparation and implementation of a Project Performance Monitoring Plan (including post-implementation monitoring and reporting), documents management, schedule review, and reporting (Quarterly Reports and Project Completion Report). Table 11 details the hourly wages paid by discipline and the number of hours to be expended for project administration. No costs are expected for equipment and supplies for this task.

In general, AWA plans to spend a total of $25,312 on project administration for this Project, including the conceptual program design and preparation of work products in support of this Prop 84 IRWM Implementation Grant Proposal. In total, the AWA project manager has spent or will spend 60 hours, the assistant engineer 110 hours, the administrative assistant 23 hours, and the UMRWA grant administrator will spend 85 hours.

All work to be completed as part of Amador Water System Leak Detection & Repair Program will be conducted by AWA employees. Per Section 2.9.2 of the California Department of Industrial Relations, Division of Labor Standards Enforcement *Public Works Manual* (May 2009), "Labor Code §1771 expressly provides that the prevailing wage requirement is 'not applicable to work carried out by a public agency with its own forces.'" Therefore, for this project, a Labor Compliance Program is not required.

Table 11: Amador Water System Leak Detection & Repair Program
Project Administration Hourly Detail

Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Project Manager	$107.00	60	$6,420.00
Assistant Engineer	$67.00	110	$7,370.00
Administrative Assistant	$39.00	23	$897.00
UMRWA Grant Administrator	$125.00	85	$10,625.00
		Total	$25,312.00

(b) Land Purchase/Easement Detail

The Amador Water System Leak Detection & Repair Project involves the installation of master meters on existing mains, followed by the identification and repair of significant leaks. As such, this project does not require any land purchases. Phase 1 of the program (meter installation and leak identification) does not require any easements. Any easements that may be required for leak repairs (Phase 2 of the program) have not yet been determined.

(c) Planning/Design/Engineering/Environmental Documentation Detail

Direct project planning/design/engineering/environmental documentation costs were estimated using hourly wage paid by discipline and the number of hours to be expended for planning/design/engineering/environmental documentation work items. Detail is provided in the Table 12; total estimated costs for planning, design, engineering and environmental documentation are $23,946.

In general, anticipated costs for planning, design, engineering and environmental documentation include completion of design of the Amador Water System Leak Detection & Repair Program. Design will include preparation of a preliminary (10%) design package, as well as preparation of a final (100%) design package. The 10% design will show project siting and layout of the master meters, and contain background geologic research and any constraints there may be that apply to the project. The 100% or final design will consist of the complete, signed plans and specifications.

Environmental documentation for this project is not yet complete. Because the project involves meter installation, a Categorical Exemption or Negative Declaration is anticipated for CEQA compliance. To be conservative, AWA is assuming that an initial study will be prepared as part of the CEQA documentation and that a Negative Declaration will be prepared for the project; the budget presented below has been prepared accordingly.

Implementation of the Project will also require AWA to acquire encroachment permits, as needed, to access the AWS mains. As such, AWA will coordinate with Amador County and the cities in which the mains are located (Amador City, Ione, Jackson, Plymouth and Sutter Creek) to obtain said permits.

Table 12: Amador Water System Leak Detection & Repair Program Planning/Design/Engineering/Environmental Documentation Detail

Stage	Discipline	Hourly Wage ($/hr)	Number of Hours	Total
10% Design	Project Manager	$107.00	24	$2,568.00
10% Design	Assistant Engineer	$67.00	112	$7,504.00
10% Design	Distribution Operator	$53.00	32	$1,696.00
100% Design	Project Manager	$107.00	24	$2,568.00
100% Design	Assistant Engineer	$67.00	96	$6,432.00
100% Design	Distribution Operator	$53.00	22	$1,166.00
Negative Declaration	N/A	N/A - Public Notices		$300.00
Negative Declaration	Project Manager	$107.00	16	$1,712.00
			Total	$23,946.00

(d) Construction/Implementation Detail

Design of the Amador Water System Leak Detection & Repair Program is currently in conceptual design; however, as this project is ministerial in nature, the project is not significantly different then other projects implemented by AWA in the past. Therefore, the total costs associated with Construction/Implementation were estimated based on recent requests for quotes and system experience. The estimated construction cost for this Project is $241,851.50. The breakdown of the estimate is shown in Table 13, Table 14, and Table 15.

Table 13: Amador Water System Leak Detection & Repair Program
Cost of Materials for Construction

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Meter Vaults	$6,347.51	18	$114,255.10
6" Water Meters	$3,288.00	18	$59,184.00
		Total	$173,439.10

Table 14: Amador Water System Leak Detection & Repair Program
Cost of Equipment for Construction

Equipment Used	Costs ($)	Number of Units	Total ($)
Crane	$123.60	72	$8,899.20
Backhoe	$41.44	144	$5,967.36
Low Bed	$62.13	24	$1,491.12
Crew Truck	$19.76	75	$1,482.00
		Total	$17,839.68

Table 15: Amador Water System Leak Detection & Repair Program
Labor Costs for Construction

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Operator (Crane)	$58.09	72	$4,182.48
Operator	$54.12	152	$8,226.24
Truck Driver	$47.50	124	$5,890.00
Laborer	$43.31	600	$25,986.00
Distribution Operator	$52.40	120	$6,288.00
		Total	$50,572.72

(e) Environmental Compliance/Mitigation/Enhancement Detail

As previously noted, a Negative Declaration has been assumed for the project and therefore, for environmental compliance, it was assumed that only standard construction-related best management measures would be required for this project. To that end, there are no estimated costs associated with environmental compliance, mitigation or enhancement

(f) Construction Administration Detail

Construction Administration represents the costs incurred to administer and manage construction for the Project. Construction administration costs were based on the expected labor hours for the construction manager, which is related to the size and difficulty in each portion of the project. Therefore, estimated construction administration costs for the first phase of the Amador Water System Leak Detection & Repair Program were estimated to be $5,870, as shown below in Table 16.

Table 16: Amador Water System Leak Detection & Repair Program Costs for Construction Administration

Discipline	Hours	Unit Cost ($)	Equipment Costs ($)	Total Costs ($)
Construction Manager	60	$78.00	$1,189.50	$5,869.50
			Total	$5,869.50

(g) Other Costs Detail

Other expected costs associated with the Amador Water System Leak Detection & Repair Program are legal review costs and permit fees associated with obtaining the associated County and city encroachment permits for meter installation. A summary of these expected other costs are shown in Table 17.

Table 17: Amador Water System Leak Detection & Repair Program Other Costs

Item	Cost ($)
Legal Fees	$2,700.00
County Encroachment Permit	$746.00
City Encroachment Permits	$4,240.00
Total	$7,686.00

(h) Construction/Implementation Contingency Detail

The Amador Water System Leak Detection & Repair Program is a ministerial project for AWA; as such, there is a high degree of confidence in the cost estimate presented herein. As a result, there is no construction/implementation contingency percentage applied to this project.

(i) Grand Total (Sum rows (a) through (h) for each column) Detail

The total estimated cost for AWA's Amador Water System Leak Detection & Repair Program is $304,665; $76,467 is provided through a local funding match and $228,198 is being requested from the Proposition 84 IRWM grant program.

Calculation of Funding Match %

The local funding match for AWA's Amador Water System Leak Detection & Repair Program is $76,467 or 25% of the total project costs for this project phase. The source of funds for this funding match will be in-kind services provided by AWA employees.

West Point Water Main & Tank Replacement Project

The West Point Water Main & Tank Replacement Project consists of replacing deteriorating water mains and a leaking redwood water storage tank in the portion of the Calaveras County Water District (CCWD) service area providing potable water supplies to the disadvantaged community of West Point. This project is vitally important to the disadvantaged community of West Point in terms of water supply reliability, water quality, and public safety. This is because, not only does the redwood water storage tank leak, but it is also susceptible to fire, which could lead to a catastrophic failure of the water system should a wildfire occur. (Note, the community of West Point is located in an extreme fire hazard zone.) As noted in the CCWD Multi-Hazard Mitigation Plan (Dec 2006), catastrophic fire is imminent, with the imminent loss of the redwood water storage tank. Loss of the potable water supply system will result in an extended outage resulting in significant health and safety issues and a loss of valuable fire fighting capability when it is most necessary. The water main replacement will include 3,900-feet of 12-inch transmission main along Winton Road between the water treatment plant and downtown West Point and an additional 2,700 feet of water mains within the downtown area along Main Street and Pine Street. A new 50,000-gallon ignition-resistant steel water storage tank will replace the leaking redwood tank and 1,500 feet of galvanized steel line to the tank will be replaced with PVC pipe.

A summary budget for the West Point Water Main & Tank Replacement project is presented in Table 18. The budget is based on the latest project documentation, primarily the 60% design, as well as estimates for professional services received as part of a request for quotes. The estimated budget for this project is $1,484,814, all of which is being requested in grant funding. However, as this project directly benefits a disadvantaged community (West Point) and as the community could not economically absorb any rate increase associated with the needed repairs, a funding match waiver has been requested for this project (see Attachment 12 for more details).

Table 18: West Point Water Main & Tank Replacement Project
Summary Budget (referenced as Table 7 in Exhibit B of the Prop 84 PSP)

Project Budget Project Title: West Point Water Main & Tank Replacement Project						
		(a)	(b)	(c)	(d)	(e)
	Budget Category	**Non-State Share* (Funding Match)**	**Requested Grant Funding**	**Other State Funds Being Used**	**Total** *This field will fill automatically*	**% Funding Match** *This field will fill automatically*
(a)	Direct Project Administration Costs	$0	$32,265	$0	$32,265	0%
(b)	Land Purchase/Easement	$0	$10,000	$0	$10,000	0%
(c)	Planning/Design/Engineering/Environmental Documentation	$0	$25,000	$0	$25,000	0%
(d)	Construction/Implementation	$0	$1,183,200	$0	$1,183,200	0%
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$9,239	$0	$9,239	0%
(f)	Construction Administration	$0	$76,190	$0	$76,190	0%
(g)	Other Costs	$0	$30,600	$0	$30,600	0%
(h)	Construction/Implementation Contingency	$0	$118,320	$0	$118,320	0%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$0**	**$1,484,814**	**$0**	**$1,484,814**	**0%**

***List sources of funding:** *This project will be serving the community of West Point. West Point is a disadvantaged community and is seeking a funding match waiver for this project. Therefore, funding for all tasks shown above are assumed to be grant funds from the Proposition 84 implementation grant program.*

(a) Direct Project Administration Detail

Direct project administration costs were calculated based on expected level of effort for preparing grant contract documents, general project administration tasks (project start-up coordination meeting, reimbursement requests, communications with UMRWA, and Board communications), preparation and implementation of a Project Performance Monitoring Plan (including post-implementation monitoring and reporting), documents management, schedule review, and reporting (Quarterly Reports and Project Completion Report). Table 19 details the hourly wages paid by discipline and the number of hours to be expended for project administration. Costs associated with a Labor Compliance Program are included in Section (g), Other Costs.

Table 19: West Point Water Main & Tank Replacement Project Administration Hourly Detail

Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Project Manager	$100.00	102	$10,200.00
Clerical	$65.00	126	$8,190.00
UMRWA Grant Administrator	$125.00	111	$13,875.00
		Total	$32,265.00

(b) Land Purchase/Easement Detail

Easements for land will be purchased for the Bummerville pipeline and are estimated to cost $10,000; the previous easements for the existing pipeline were based on an informal agreement with one property owner and never notarized or recorded in 1960. Land for the Bummerville tank site (APN 008-025-073) is owned by CCWD; it was purchased in March of 1995 by grant deed.

(c) Planning/Design/Engineering/Environmental Documentation Detail

Direct project planning/design/engineering/environmental documentation costs were estimated using hourly wage paid by discipline and the number of hours to be expended for planning/design/engineering/environmental documentation work items. Detail is provided in the following table; total estimated costs for planning, design, engineering and environmental documentation are $25,000. In general, anticipated costs for this task include preparation of the final designs for the project. Further, all construction for this project will be in County roads or State highway right-of-ways; CCWD will obtain the required encroachment permits from both Calaveras County Public Works and the California Department of Transportation prior to construction.

Table 20: West Point Water Main & Tank Replacement Project Planning/Design/Engineering/Environmental Documentation Detail

Stage	Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Final Design	Civil Engineer	$75.00	160	$12,000.00
Final Design	Drafter	$50.00	200	$10,000.00
Final Design/Plan-Check	Construction Manager	$75.00	40	$3,000.00
			Total	$25,000.00

Environmental documentation for this project has been completed. An Initial Study/Mitigated Negative Declaration (IS/MND) was completed in August of 2007 for the *West Point Service Area Water System Improvements* and a Notice of Determination was completed in October 2007; therefore this project is deemed compliant with the California Environmental Quality Act.

(d) Construction/Implementation Detail

Design of the West Point Water Main & Tank Replacement Project is currently 60% complete and was prepared by CCWD. Estimated costs for construction were based on request for quotes obtained by the District. The total cost for Construction /Implementation of this Project is $1,183,200. The basis of the estimate is shown in Table 21. No costs for equipment or labor are shown for this project as the quotes received were lump sum; therefore, the unit costs shown below include the costs for labor, materials and equipment.

Table 21: West Point Water Main & Tank Replacement Project
Cost of Materials for Construction

Materials Used	Unit Costs ($)	Number of Units	Total ($)
8" PVC Water Main (ft)	$50.00	3610	$180,500.00
10" PVC Water Main (ft)	$60.00	600	$36,000.00
12" DIP Water Main (ft)	$95.00	3900	$370,500.00
6" Gate Valves	$1,000.00	6	$6,000.00
8" Gate Valves	$1,250.00	8	$10,000.00
10" Gate Valves	$1,500.00	2	$3,000.00
12" Gate Valves	$2,300.00	4	$9,200.00
Fire Hydrants	$4,500.00	14	$63,000.00
Air Relief Valves	$3,000.00	5	$15,000.00
Service Connections	$1,200.00	65	$78,000.00
Tie-in's/Connections	$5,000.00	6	$30,000.00
Pavement Replacement (ft)	$20.00	6600	$132,000.00
Water Storage Tank	$250,000.00	1	$250,000.00
		Total	$1,183,200.00

(e) Environmental Compliance/ Mitigation/Enhancement Detail

An IS/MND was prepared for the *West Point Service Area Water System Improvements* project in 2007. While no significant impacts were identified for the project, mitigation measures were recommended to minimize potential impacts relating to construction. These measures included, but were not limited to, implementation of best management practices (BMPs) relating to minimizing soil erosion during storm events. Further detail is provided in the IS/MND, which is included as an attachment to this grant application. The total estimated cost for implementing these mitigation measures is $9,239, based on the design level of the project and the information included in Table 22 and Table 23.

Table 22: West Point Water Main & Tank Replacement Project
Cost of Materials for Environmental Compliance/Mitigation/Enhancement

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Fiber Rolls (8"x25')	$0.72	100	$72.00
Wood Stakes (18")	$0.25	600	$150.00
Visqueen (20'x100', 6 mil, black)	$125.00	1	$125.00
Delivery Charge	$100.00	1	$100.00
		Total	$447.00

Table 23: West Point Water Main & Tank Replacement Project
Labor Costs for Environmental Compliance/Mitigation/Enhancement

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Maintenance Specialist III	$117.39	32	$3,757.48
Maintenance Specialist III	$117.39	32	$3,757.48
Administrative Assistant	$106.57	12	$1,278.84
		Total	$8,792.09

(f) Construction Administration Detail

Construction Administration represents the costs incurred to administer and manage construction for the Project. Costs presented below were based on the duration of the project and daily inspections by CCWD staff; including travel time to get to the remote site. Special inspection and testing costs are for a third party firm to perform compaction tests on all trench backfill and collect and lab test concrete cylinders. County Public Works performs secondary inspections of traffic controls, backfill compaction and placement of asphaltic concrete paving. An estimate of the expected construction administration costs is shown in Table 24.

Table 24: West Point Water Main & Tank Replacement Project
Costs for Construction Administration

Discipline	Hours	Unit Cost ($)	Equipment Costs ($)	Total Costs ($)
Project Engineer	40	$75.00	$1,189.50	$4,189.50
Construction Manager	240	$75.00		$18,000.00
Construction Inspector	580	$50.00		$29,000.00
Special Inspection & Testing	(contract)	$25,000.00		$25,000.00
			Total	$76,189.50

(g) Other Costs Detail

Other expected costs include the cost of implementing a Labor Compliance Program (LCP), County Public Works Inspection Fees, and three hours of Legal Counsel time (at $200/hour). A verbal quote from Kurey & Associates for LCP implementation was ~1% of construction cost. Additional travel time to remote site will increase the estimated costs. A summary of these expected other costs are shown in Table 25.

Table 25: West Point Water Main & Tank Replacement Project
Other Costs

Item	Cost ($)
Labor Compliance Program (LCP)*	$15,000.00
County Public Works Inspection Fees	$15,000.00
Legal Counsel	$600.00
Total	$30,600.00

(h) Construction/Implementation Contingency Detail

The construction/implementation contingency percentage applied to this project is 10% of the construction expenses (or an estimated $118,320). The contingency is based on previous experience on similar projects. These costs include funds to handle unknown and unspecified conditions encountered during construction or implementation of the project.

(i) Grand Total (Sum rows (a) through (h) for each column) Detail

The total estimated cost for West Point Water Main & Tank Replacement Project is $1,484,814; $0 is provided through funding match and $1,484,814 is being requested from the Proposition 84 IRWM grant program.

Calculation of Funding Match %

The local funding match for West Point Water Main & Tank Replacement Project is 0% of the total project costs (estimated to be $1,484,814). As this project addresses a critical water supply need for a Disadvantaged Community (DAC) and as the community cannot sustain a rate increase to fund the project, a funding match waiver is being requested for this project. Further documentation regarding the DAC status of West Point is provided in Attachment 12.

Camanche Regional Water Treatment Plant Phase 1 Project

A summary of the budget for East Bay Municipal Utility District's (EBMUD's) Camanche Regional Water Treatment Plant Phase 1 Project is presented in Table 26. Phase 1 of the overall Camanche Regional Water Treatment Plant Project (WTP) is a discrete component involving installation of a pipeline to initially connect the existing Camanche WTP with EBMUD's Mokelumne Aqueducts in order to supply better raw water for production of higher-quality portable water for use in the Camanche South Shore Recreation Area (CASS). Following implementation of subsequent project phases (specifically, construction of the new Camanche Regional WTP), the new Mokelumne Aqueduct to CSS WTP pipeline will connect to the new water treatment plant and ultimately produce higher-quality potable water for CASS, the Camanche North Shore Recreation Area (CANS), the Lake Camanche Village area in Amador County, and the communities of Burson and Wallace in Calaveras County. Any grant funds received from the Proposition (Prop) 84 grant application will be applied only to the Phase 1 project (the Mokelumne Aqueducts to CSS WTP Pipeline). The local funding match for this project is approximately 39% of estimated design and construction costs.

The detailed budget information for the project-specific work items is presented below. The budget presented herein is commensurate with the 90% design prepared by EBMUD for this project. Components of final design, materials bidding, and construction, yet to be completed, as well as costs for work which has been completed to date are all included in this budget. The estimated budget for this project is $720,020, of which $283,560 is being provided as local funding match and $436,460 is being requested in grant funding.

Table 26: Camanche Regional Water Treatment Plant Phase 1 Project Summary Budget (referenced as Table 7 in Exhibit B of the Prop 84 PSP)

Project Budget Project Title: Camanche Regional Water Treatment Plant Phase 1 Project						
		(a)	(b)	(c)	(d)	(e)
	Budget Category	**Non-State Share* (Funding Match)**	**Requested Grant Funding**	**Other State Funds Being Used**	**Total** *This field will fill automatically*	**% Funding Match** *This field will fill automatically*
(a)	Direct Project Administration Costs	$0	$42,779	$0	$42,779	0%
(b)	Land Purchase/Easement	$0	$0	$0	$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	$272,606	$42,565	$0	$315,171	86%
(d)	Construction/Implementation	$0	$336,635	$0	$336,635	0%
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$9,239	$0	$9,239	0%
(f)	Construction Administration	$0	$4,642	$0	$4,642	0%
(g)	Other Costs	$10,954	$600	$0	$11,554	95%
(h)	Construction/Implementation Contingency	$0	$0	$0	$0	0%
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$283,560**	**$436,460**	**$0**	**$720,020**	**39%**
***List sources of funding:** *In-kind services provided by EBMUD employees.*						

(a) Direct Project Administration Detail

Direct project administration costs were calculated based on expected level of effort for preparing grant contract documents, general project administration tasks (project start-up coordination meeting, reimbursement requests, communications with UMRWA, and Board communications), preparation and implementation of a Project Performance Monitoring Plan (including post-implementation monitoring and reporting), documents management, schedule review, and reporting (Quarterly Reports and Project Completion Report). Table 27 details the hourly wages paid by discipline and the number of hours to be expended for project administration. Total direct project administration costs for this project are $42,779.

All work to be completed as part of the Camanche Water Treatment Plant Phase 1 project will be conducted by EBMUD employees. Per Section 2.9.2 of the California Department of Industrial Relations, Division of Labor Standards Enforcement *Public Works Manual* (May 2009), "Labor Code §1771 expressly provides that the prevailing wage requirement is 'not applicable to work carried out by a public agency with its own forces.'" Therefore, for this project, a Labor Compliance Program is not required.

Table 27: Camanche Regional Water Treatment Plant Phase 1
Project Administration Hourly Detail

Discipline	Hourly Wage ($/hr)	Number of Hours	Total
Superintendent of Pardee	$197.00	24	$4,728.00
Assistant Superintendent Pardee	$170.00	110	$18,700.00
Associate Civil Engineer	$170.00	16	$2,720.00
Administrative Assistant	$106.00	26	$2,756.00
UMRWA Grant Administrator	$125.00	111	$13,875.00
		Total	$42,779.00

(b) Land Purchase/Easement Detail

No land will be purchased nor are any easements required for the proposed project.

(c) Planning/Design/Engineering/Environmental Documentation Detail

Direct project planning/design/engineering/environmental documentation costs were estimated using hourly wage paid by discipline and the number of hours to be expended for planning/design/engineering/environmental documentation work items. Detail is provided in Table 28; total estimated costs for planning, design, engineering, and environmental documentation are $315,171 with $272,606 spent to-date and $42,565 in estimated future costs.

Table 28: Camanche Regional Water Treatment Plant Phase 1
Planning/Design/Engineering/Environmental Documentation Detail

Stage (i.e. planning, Design*, etc.)	Discipline	Hourly Wage ($/hr)	Number of Hours	Total
30% Design – Completed	EBMUD Staff	Job Numbers 1002224 & 1002225 (Staff time only: no professional services charged)		$272,606.00
90% Design	EBMUD Staff	Will Not Use as Match Grant		
Final Design	Superintendent of Pardee	$197.09	12	$2,365.08
Final Design	Assistant Superintendent Pardee	$170.01	12	$2,040.12
CEQA Documentation	Associate Civil Engineer	$170.01	40	$6,800.40
CEQA Documentation	Superintendent of Pardee	$197.09	8	$1,576.72
CEQA Documentation	Assistant Superintendent Pardee	$170.01	10	$1,700.10
CEQA Documentation	Associate Civil Engineer	$170.01	40	$6,800.40
CEQA Documentation	Administrative Assistant	$106.57	12	$1,278.84
Engineering Field Investigations	Surveying Supervisor	$212.56	12	$2,550.72
Engineering Field Investigations	Survey Technician II	$136.34	64	$8,725.76
Engineering Field Investigations	Survey Technician II	$136.34	64	$8,725.76
			Total (work to be completed)	$42,563.90

In general, anticipated costs for this task include the pipeline alignment surveying that will be required to support final design, plus costs associated with the final design itself (drawings and specifications). Also included in this task costs are anticipated expenditures associated with preparation of a CEQA addendum to the 2001 Mitigated Negative Declaration that was prepared and certified for the Camanche Regional Water Treatment Plant Project, and for anticipated permits relating to project construction (Stormwater NPDES permit).

(d) Construction/Implementation Detail

Design of the Camanche Regional Water Treatment Plant Phase 1 is currently 90% complete. A cost estimate with appropriate detail based on that design stage is attached. The estimate is based on work conducted as part of the July 2003 *Camanche South and North Shore WTP Evaluation* Report, on similar project experience, and the estimated quantity of materials to be used and unit costs. The total cost for Construction/Implementation for this Project is $336,635. The basis of the estimate is shown in Table 29, Table 30, and Table 31.

Table 29: Camanche Regional Water Treatment Plant Phase 1 Project Cost of Materials for Construction

Materials Used	Unit Costs ($)	Number of Units	Total ($)
12" HDPE Pipe	$25.00	6000	$150,000.00
Control Density Fill and Paving	$3.33	6000	$20,000.00
		Total	$170,000.00

Table 30: Camanche Regional Water Treatment Plant Phase 1 Project Cost of Equipment for Construction

Equipment Used	Costs ($)	Number of Units	Total ($)
Miscellaneous Equipment Rental	$40,000.00	1	$40,000.00
		Total	$40,000.00

Table 31: Camanche Regional Water Treatment Plant Phase 1 Project Labor Costs for Construction

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Assistant Superintendent Pardee	$170.01	8	$1,360.08
Maintenance Specialist III	$117.39	464	$54,468.96
Maintenance Specialist III	$117.39	464	$54,468.96
Construction Inspector	$136.11	120	$16,333.20
		Total	$126,631.20

(e) Environmental Compliance/Mitigation/Enhancement Detail

A draft Mitigated Negative Declaration (MND) was prepared for the Camanche Regional Water Treatment Plant Project in July of 2001 (State Clearinghouse Number 2001072084) and adopted by EBMUD's Board of Directors on September 2001. The draft MND and subsequent Board adoption did not identify any significant impacts resulting from the construction and/or operation of the project, but mitigation measures were recommend to avoid or replace habitat to reduce potential impacts to a less-than-significant level. Some of the mitigation measures identified in the Board-approved MND are:

- Mitigation IV.a-1: "The final alignment will be mapped, marked and staked in the field prior to March 1, 2001. At that time, wetland and rare plant surveys will be conducted. These surveys will be conducted periodically from March 1 through July 31 to ensure identification of any rare plant species or wetland. If the final alignment cannot be routed around extant wetlands, pipeline construction will employ subsurface boring or surface trenching in the dry to avoid or minimize disturbance.
- Mitigation IV.a-3: "The mitigation ponds will be constructed in suitable drainages within 1 mile of the final pipeline alignment, with one pond on the south shore and one pond on the north shore. The ponds will be constructed to collect winter rainfall and will be inoculated with appropriate native emergent and submergent vegetation. The success criterion is that each pond will maintain surface water at least 6 inches deep until the end of July. If ponds dry sooner in the year, they may require an increase dam height or sealing. Ponds will be monitored annually for five years following pipeline construction to determine success. A monitoring plan for any unanticipated impacts will be developed, if required, after the wetland and rare plant surveys are conducted in 2002.

Further detail is provided in the MND, which is included as an attachment to this grant application. The total estimated cost for implementing these mitigation measures is $9,239, based on the design level of the project and the information included in Table 32 and Table 33.

Table 32: Camanche Regional Water Treatment Plant Phase 1 Project
Cost of Materials for Environmental Compliance/Mitigation/Enhancement

Materials Used	Unit Costs ($)	Number of Units	Total ($)
Fiber Rolls (8"x25')	$0.72	100	$72.00
Wood Stakes (18")	$0.25	600	$150.00
Visqueen (20'x100', 6 mil, black)	$125.00	1	$125.00
Delivery Charge	$100.00	1	$100.00
		Total	$447.00

Table 33: Camanche Regional Water Treatment Plant Phase 1 Project Labor Costs for Environmental Compliance/Mitigation/Enhancement

Discipline	Hourly Wage by discipline ($)	Number of hours	Total ($)
Maintenance Specialist III	$117.39	32	$3,756.48
Maintenance Specialist III	$117.39	32	$3,756.48
Administrative Assistant	$106.57	12	$1,278.84
		Total	$8,792.09

(f) Construction Administration Detail

Construction Administration represents the costs incurred to administer and manage construction of the Project. Because the project will be conducted by EBMUD staff on EBMUD lands, construction administration is anticipated to be minimal. Total construction administration costs for the Camanche Regional Water Treatment Plant Phase 1 project totals $4,642. This cost is based on unit labor rates and the expected level of effort required to prepare materials contracts and to review and approve said materials contracts.

Table 34: Camanche Regional Water Treatment Plant Phase 1 Project Costs for Construction Administration

Discipline	Hours	Unit Cost ($)	Equipment Costs ($)	Total Costs ($)
Superintendent of Pardee	8	$197.09	$0.00	$1,576.75
Assistant Superintendent Pardee	8	$170.01	$0.00	$1,360.09
Administrative Assistant	16	$106.57	$0.00	$1,705.09
			Total	$4,641.93

(g) Other Costs Detail

Other costs associated with the Camanche Regional Water Treatment Plant Phase 1 Project are legal costs associated with the CEQA Addendum to the 2001 MND, project permits, and project-related agreements. These costs are estimated to be $11,554, and include time for legal review of documents, communication with legal staff, and legal input to comments on the draft addendum. The estimated task cost was calculated using unit labor rates of $288.85 per hour and an estimated level of effort of 40 hours for the anticipated scope of work.

Table 35: Camanche Regional Water Treatment Plant Phase 1 Project Other Costs

Item	Cost ($)
Legal Counsel	$11,554.30
Total	$11,554.30

(h) Construction/Implementation Contingency Detail

The Camanche Regional Water Treatment Plant Phase 1 Project is being designed and constructed by EBMUD on EBMUD-owned property; as such, there is a high degree of certainty associated with the proposed budget. As a result, no construction/implementation contingency is proposed for the project.

(i) Grand Total (Sum rows (a) through (h) for each column) Detail

The total estimated cost for EBMUD's Camanche Regional Water Treatment Plant Phase 1 Project is $720,020; $283,560 is provided through funding match and $436,460 is being requested from the Proposition 84 IRWM grant program.

Calculation of Funding Match %

The funding match for EBMUD's Camanche Regional Water Treatment Plant Phase 1 project is $283,560 or 39% of the total project costs for this project phase. The source of funds for this funding match will be in-kind services provided by EBMD employees.